

Appl. No. : Unknown  
Filed : April 21, 2006

## AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A method of recycling glass fibrefiber material, the method comprising the steps of:

- providing glass fibrefiber material extracted from a composite material containing glass fibrefiber embedded in a matrix material, the glass fibrefiber material being provided in a first form;[.]
- mechanically treating the glass fibrefiber material in the first form into so as to generate glass fibrefiber material in a second form, the glass fibrefibers in the second form having a mean fibrefiber length smaller than the mean fibrefiber length of the glass fibrefibers in the first form;[.] and
- further treating the glass fibrefiber material in the second form so as to obtain generate glass fibrefiber material in a third form, the glass fibrefiber material in the third form being suitable for insulation material, i.e. wherein the material in the third form contain comprises glass fibrefibers in a form where the fibrefibers are in a random, or apparently random, network embracing air comprising cavities.

2. (Currently Amended) A method according to claim 1, wherein the glass fibrefibers in the first form is having have a mean fibrefiber length so such that the first form is a non-powder form.

3. (Currently Amended) A method according to claim 1, further comprising extracting the material in the first form from the matrix material with pyrolysis or gasification of the matrix material.any of the claims 1-2, wherein the glass fibrefiber material in the first form is extracted by means of pyrolysis or gasification of the matrix material, thereby releasing the glass fibrefiber from the embedding matrix.

4. (Currently Amended) A method according to claim 1, further comprising extracting the material in the first form from the matrix material by incineration or oxygen combustion of the matrix material.any of the claims 1-2, wherein the glass fibrefiber material in the first form is extracted by means of incineration or oxygen combustion of the matrix material, thereby releasing the glass fibrefiber from the embedding matrix.

5. (Currently Amended) A method according to to claim 1, further comprising extracting the material in the first form from the matrix material by chemically dissolving the

Appl. No. : Unknown  
Filed : April 21, 2006

~~matrix material.~~any of the claims 1-2, wherein the glass fibre~~fiber~~ material in the first form is extracted by means of chemically dissolving of the matrix material, thereby releasing the glass fibre~~fiber~~ from the embedding matrix.

6. (Currently Amended) A method according to claim 1any of the preceding claims, wherein the composite material is substantially a waste material.

7. (Currently Amended) A method according to claim 1any of the preceding claims, wherein an amount of mineral wool is added to the glass fibre~~fiber~~ in the first form.

8. (Currently Amended) A method according to claim 1any of the preceding claims, wherein the mechanically treating ~~ment~~ the glass fiber material in the first form comprisesing the steps of passing the glass fibre~~fiber~~ material from an inlet through a chamber comprising a rotor and a plurality of stators and from the chamber through a mesh into an outlet.

9. (Currently Amended) A method according to claim 8, wherein the mesh comprises mesh openings in the size range of at least one of from about 1mm to about 10mm, from about 2mm to about 8mm, and from about 3mm to about 5mm. 1-10 mm, such as 2-8 mm, such 3-5 mm.

10. (Currently Amended) A method according to claim 8, wherein the mesh comprises mesh openings in the size range of at least one of at least one of from about 20mm to about 50mm, from about 25mm to about 45mm, from about 30mm to about 40mm, and about 35mm. 20-50 mm, such as 25-45 mm, such as 30-40 mm, such as approximately 35 mm.

11. (Currently Amended) A method according to any of the preceding claims, claim 1, wherein the glass fibre~~fiber~~ material in the second form comprises glass fibrefibers having a mean fibre~~fiber~~ length substantially in the range of at least one of about from about 0.1mm to about 5mm, from about 0.5mm to about 5mm, from about 1mm to about 4mm, and from about 2mm to about 3mm. 0.1-5 mm, such as 0.5-5 mm, such as between 1-4 mm, such as between 2-3 mm.

12. (Currently Amended) A method according to any of the claims 1-10, claim 1, wherein the glass fibre~~fiber~~ material in the second form comprises glass fibrefibers having a mean fibre~~fiber~~ length substantially in the range of at least one of from about 10mm to about 40mm, from about 15mm to about 35mm, from about 20mm to about 30mm, and about 25mm. 10-40 mm, such as 15-35 mm such as 20-30 mm, such as approximately 25 mm.

Appl. No. : Unknown  
Filed : April 21, 2006

13. (Currently Amended) A method according to ~~any of the preceding claims, claim 1,~~ wherein the glass ~~fibrefiber~~ material in the first form comprises glass ~~fibrefibers~~ having a mean ~~fibrefiber~~ diameter substantially in the range of ~~at least one of from about 10 micrometers to about 25 micrometers, and from about 15 micrometers to about 18 micrometers.~~ <sup>10-25</sup> ~~micrometer, such as in the range 15-18 micrometer.~~

14. (Currently Amended) A method according to ~~any of the preceding claims, claim 1,~~ wherein ~~treating the glass fiber material in the second form comprises generating glass wool, the further treatment comprising providing the glass fibrefiber in the form of glass wool suitable for use as an insulation material.~~

15. (Currently Amended) A method according to claim 11, wherein ~~treating the glass fiber material in the second form comprises generating substantially pellet-shaped objects comprising glass fiber.~~ ~~the glass fibrefiber material in the second form is further treated into substantially pellet shaped objects comprising glass fibrefiber and optionally a binding material for maintaining the shape of the pellet shaped objects.~~

16. (Currently Amended) A method according to claim 15, wherein the substantially pellet-shaped objects are in the size range of ~~at least one of from about 3mm to about 15mm, from about 4mm to about 13mm, from about 5mm to about 11mm and from about 8mm to about 10mm.~~ <sup>3-15 mm, such as 4-13 mm, such as 5-11 mm, such as 8-10 mm.</sup>

17. (Currently Amended) A method according to ~~any of the claims 1-14, claim 1,~~ wherein ~~treating the glass fiber material in the second form comprises generating the glass fibrefiber material in the second form is further treated into the form of insulation panels, insulation mats or a roll of insulation material.~~

18. (Currently Amended) A method according to claim 17, wherein the insulation panel comprises at least one curved surface.

19. (Currently Amended) A method according to ~~any of the preceding claims, wherein claim 1, further comprising extracting the material in the first form from the matrix material~~ the glass ~~fibrefiber~~ material in the first step of claim 1 is extracted by heating the composite material in a substantially inactive atmosphere in a closed furnace chamber to a process temperature between 450-650°C, during a process period, by means of which ~~wherein~~ substantially all ~~of the~~ matrix material is converted into a ~~gas, which is carried off while~~ removing the gas, ~~wherein~~

Appl. No. : Unknown  
Filed : April 21, 2006

the glass ~~fibrefibers~~ remain substantially intact, and may, after the process period, be withdrawn withdrawing the glass fibers from the furnace chamber.

20. (Currently Amended) A method according to ~~any of the preceding claims~~, claim 1, wherein the matrix material comprises at least one of a thermosetting resin, ~~such as~~ an epoxy material, a polyester resin, a vinylester resin, ~~and/or~~ a phenoplast resin, and ~~and/or~~ a thermoplastic material.

21. (Currently Amended) A method according to ~~any of the preceding claims~~, claim 1, wherein the material in the third form is suitable for at least one of heat insulation, cold insulation, and ~~and/or~~ sound insulation.

22. (Currently Amended) An apparatus comprising:  
an inlet,  
a treatment chamber connected to the inlet; and  
an outlet connected to the treatment chamber,  
wherein the apparatus being adapted for performing is configured to perform the method according to ~~claim 1~~any of the claims 1-21.

2223. (Currently Amended) Insulation material ~~being~~ fabricated according to the method of ~~claim 1~~any of the claims 1-21.

2324. (Currently Amended) Use of A method of using glass ~~fibrefiber~~, the method comprising: ~~material extracted from a composite material containing glass fibrefiber embedded in a matrix material~~

providing the glass fiber material, the glass fiber material having been extracted from a composite material containing glass fiber embedded in a matrix material; and

placing the glass fiber material between first and second locations, wherein the glass fiber material is configured to insulate the first location from the second location.

~~for insulation material~~.

25. (New) A method according to claim 15, wherein the pellet-shaped objects further comprise a binding material configured to substantially maintain the shape of the pellet-shaped objects.